

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1-5 are now present in this application. Claims 1, 2 and 5 are independent.

An amendment has been made to the specification (to correct a minor typographical error), and claims 1, 2 and 5 have been amended. No new matter is involved.

Additionally, Applicant respectfully submits that the Amendments to claims 1, 2 and 5 are fully supported in Applicant's disclosure as originally filed. Support for obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not is found throughout Applicant's originally filed disclosure including, for example, from page 8, line 26 through page 9, line 27. Support for the system recited in claim 5 is found, for example, in Figs 1-4 and their associated disclosure in the main body of the specification.

Reconsideration of this application, as amended, is respectfully requested.

Priority Under 35 U.S.C. § 119

Applicant thanks the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document.

Information Disclosure Citation

Applicant thanks the Examiner for considering the reference supplied with the Information Disclosure Statement filed on June 1, 2004, and for providing Applicant with an initialed copy of the PTO-1449 form filed therewith.

Applicant filed another Information Disclosure Statement (IDS) on January 13, 2005. Applicant respectfully requests that the Examiner consider the IDS filed on January 13, 2005 and provide Applicant with an initialed copy of the Form PTO-1449 filed therewith.

Specification Amendments

Applicant has amended the specification in order to correct a minor typographical error.

Rejection Under 35 U.S.C. § 101

Claim 5 stands rejected under 35 U.S.C. §101 because the claim is not supported by either a specific asserted utility or a well-established utility and, because it recites a “program” and is not supported by specific steps, credibility cannot be assessed. Applicant respectfully traverses this rejection.

Although somewhat inarticulately phrased, claim 5 is actually reciting a system for issuing an alarm. To clarify what is actually being claimed, claim 5 has been amended to recite a system in the claim preamble, and a number of elements of that system in the body of the claim.

Applicant respectfully submits that the claimed system has a well-defined specific utility, i.e., for alarming the decrease in tire air pressure.

Reconsideration and withdrawal of this rejection under 35 U.S.C. §101 are respectfully requested.

Rejection Under 35 U.S.C. §112, 1st Paragraph

Claim 5 stands rejected under 35 U.S.C. §112, 1st Paragraph. This rejection is respectfully traversed.

The Examiner states that one of ordinary skill in the art would not know how to use the claimed invention because the claimed invention is not supported by either a specific utility or a well-established utility.

Applicant respectfully submits that the system recited in amended claim 5 has a clearly established specific utility, i.e., for alarming the decrease in tire air pressure.

Accordingly, this rejection of claim 5 under 35 U.S.C. §112, first paragraph is improper and should be withdrawn.

Reconsideration and withdrawal of this rejection are respectfully requested.

Rejection Under 35 U.S.C. §102

Claims 1, 2 and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,531,110 to Ohashi et al. ("Ohashi"). This rejection is respectfully traversed.

Initially, it is noted that the statement of the rejection indicates that claims 1-5 are rejected, but the body of the rejection only addresses claims 1, 2 and 5. Accordingly, Applicant respectfully submits that only claims 1, 2 and 5 are under rejection under 35 U.S.C. §102(b) as anticipated by Ohashi. *Clarification is respectfully requested.*

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). This burden can be satisfied when

the PTO presents evidence, by means of some teaching, suggestion or inference either in the applied prior art or generally available knowledge, that would have appeared to have suggested the claimed subject matter to a person of ordinary skill in the art or would have motivated a person of ordinary skill in the art to combine the applied references in the proposed manner to arrive at the claimed invention. See Carella v. Starlight Archery Pro Line Co., 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); In re Rinehart, 531 F.2d 1048, 1051-1052, 189 USPQ 143, 147 (CCPA 1976).

If the PTO fails to meet this burden, then the applicant is entitled to the patent. However, when a *prima facie* case is made, the burden shifts to the applicant to come forward with evidence and/or argument supporting patentability. Patentability *vel non* is then determined on the entirety of the record, by a preponderance of evidence and weight of argument, *Id.*

A prior art reference anticipates the subject matter of a claim when that reference discloses every feature of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed Cir. 1997). While, of course, it is possible that it is inherent in the operation of the prior art device that a particular element

operates as theorized by the Examiner, inherency may not be established by probabilities or possibilities. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Contrary to what is asserted in the Office Action, Applicant respectfully submits that Ohashi has absolutely no disclosure of obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not; or of changing the respective thresholds depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements, as recited in claim 1.

The Office Action incorrectly states that Ohashi discloses changing these respective thresholds depending on the magnitude of the driving torque, col. 4, lines 30-38, col. 4, line 54 to col. 5, line 2; and col. 12, lines 22-27. In col. 4, lines 30-38, Ohashi merely indicates that it is possible to determine certain vehicle operations such as whether a braking force is applied to a wheel, or operation of a brake pedal, or whether driving torque is applied to the drive wheel. This has nothing to do with obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not; and changing the respective thresholds depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements, as recited in claim 1.

Similarly, from col 4, line 54 to col. 5, line 2, Ohashi discloses sensing one of braking torque and driving torque applied to a wheel and uses one or both of those parameters to estimate a disturbance acting on that wheel. This has nothing to do with obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not; and changing the respective thresholds depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements, as recited in claim 1.

Similarly, in col. 12, lines 22-27, Ohashi discloses a torque detector adapted to detect a driving torque or a braking torque of a wheel member. This has nothing to do with obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not; and changing the respective thresholds depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements, as recited in claim 1.

Moreover, the Office Action fails to indicate how the referenced disclosure constitutes obtaining respective thresholds for determining whether judgment of decrease in tire air-pressure is to be made or not; and changing the respective thresholds depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements, as recited in claim 1, and it is not clear from reading Ohashi.

Another way of explaining Applicant's position is to explain Applicant's invention with respect to Figs. 3 and 4. Applicant illustrates a first concrete method (method 1) of determining whether judgment of decrease in the air-pressure depending on magnitude of driving torque of the vehicle when the vehicle is performing turning movements in the hatched region D1 in Fig. 3, such that formula (3) on page 7 of the main body of Applicant's specification, is satisfied, meaning that no judgment of decrease in air pressure is performed. Applicant illustrates a second concrete method (method 2) of determining whether judgment of decrease in the air-pressure depending on the magnitude of driving torque of the of the vehicle when the vehicle is performing turning movements in the hatched region D2 in Fig. 4, such that the formula (6) on page 9 of the main body of Applicant's specification, is satisfied, meaning that no judgment of decrease in air pressure is performed.

When either method 1 or method 2, above, is used, no judgment of decrease in air pressure is performed on the condition of a large driving force and a large turning force. Therefore, improving the detection accuracy without issuing erroneous alarm can be achieved even on the condition of a large driving force and a large turning force. Furthermore, in the present invention, using a suitable threshold which changes all the times provides a better detection accuracy of a decrease of the air pressure.

Ohashi does not describe or suggest what Applicant describes in the hatched region D1 of Fig. 3 or the hatched region D2 of Fig. 4, or that in either of those regions, no judgment of decrease in air pressure is performed.

Moreover, Ohashi does not disclose changing thresholds, as recited.

Similar comments apply to the threshold changing means recited in claim 5.

Further, with respect to claim 2, Ohashi's disturbance observer 130 estimates the disturbance acting on a wheel as one of a plurality of variables in an equation of state indicative of a rotary motion of that wheel (claim 1) and col. 32, lines 50-67, relied on to disclose a threshold changing means which changes respective thresholds for determining whether judgment of decrease in the air pressure is to be made or not depending on the magnitude of the driving torque of the vehicle, simply do not contain such a disclosure. Instead, col. 32, lines 50-67 merely discuss determining a threshold and making decisions depending on whether determined values are not larger than, or larger than that threshold. That is not what is claimed. What is being claimed is changing respective thresholds. Ohashi does not change respective thresholds at all.

Accordingly, claim 2 is not anticipated by Ohashi.

Reconsideration and withdrawal of this rejection of claims 1, 2 and 5 are respectfully requested.

Rejections under 35 U.S.C. §103

Claims 3 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ohashi in view of U.S. Patent 6,323,765 to Horie et al. ("Horie"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of

obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior

art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Moreover, it is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, during patent examination, the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicant is entitled to the patent. Only when a *prima*

facie case is made, the burden shifts to the applicant to come forward to rebut such a case.

Ohashi does not disclose the features of claim 2, upon which claims 3 and 4 depend, at least for the reasons discussed above. Moreover, Horie is not being applied to remedy the deficiencies in Ohashi that are discussed above. Accordingly, even if one of ordinary skill in the art were properly motivated to modify Ohashi in view of Horie, the resulting modified version of Ohashi would neither disclose nor render obvious the claimed invention.

Furthermore, the Office Action does not present objective factual evidence that one of ordinary skill in the art would turn to Horie to modify Ohashi. In this regard, the stated basis for such motivation is that Horie and Ohashi are in the same field of endeavor.

Saying that both Ohashi and Horie are from the same field of endeavor is nothing more than a broad conclusory statement about different air pressure abnormality indicating devices and, standing alone, is not "evidence" of proper motivation. See In re Dembiczak, cited above.

Moreover, just because a number of different parameter determinations may possibly be used to determine a change in tire air pressure does not mean that it is one of ordinary skill in the art would desire to modify Ohashi to employ lateral directional acceleration detecting means in an air pressure abnormality as such a parameter. Just because something may be feasible

does not mean that it is desirable, especially when it would involve the costs of redesigning Ohashi with no objective factual evidence being presented by the Office to demonstrate that the proposed modification of Ohashi would result in an improved system. Moreover, the conclusion in the rejection that such a modification would increase alarm generation is speculative at best, especially with respect to the proposed modified version of Ohashi.

Additionally, neither Horie nor Ohashi discloses or suggests not performing a judgment of decrease in air pressure in what is disclosed by Applicant as in the hatched region D1 of Fig. 3 and/or D2 of Fig. 4.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 3 and 4 based on Ohashi and Horie.

Reconsideration and withdrawal of this rejection of claims 3 and 4 are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the

outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a two (2) months extension of time for filing a reply in connection with the present application, and the required fee of \$450.00 is attached hereto.


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Art Unit 3661

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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